DOCUMENT RESUME

ED 210 638 CS 006 386

AUTHOR Fry, Edward
TITLE Do Children Read Better Now Than 10 Years Ago?
PUB DATE Dec 81
NOTE 11p.: Paper presented at the Annual Meeting of the National Reading Conference (Dallas, TX, December 2-5, 1981). Best copy available.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Achievement Gains; *Comparative Analysis; *Educational Assessment; Educationally Disadvantaged; Elementary Secondary Education; *National Competency Tests; *Reading Achievement; *Reading Improvement; Reading Skills
IDENTIFIERS *National Assessment of Educational Progress

ABSTRACT

The National Assessment of Educational Progress (NAEP) is a stratified random measure to systematically sample the performance of three age groups in a variety of subjects so that generalizations can be made to the United States as a whole. Past NAEP mean total reading scores have indicated that, in general, girls read slightly better than boys, whites read considerably better than blacks, and children who live in advantaged urban communities read better than those from rural or disadvantaged urban communities. A comparison of mean reading scores from the 1970 and 1980 assessments was made to see whether reading ability levels had improved during that ten-year period. The comparison indicated that (1) 9-year-old students read significantly better, 13-year-old students read slightly better, and 17-year-old students read slightly worse than their 1970 counterparts; (2) boys made slightly better gains over the ten-year period than did girls; (3) those from rural and disadvantaged urban communities made greater gains than those from advantaged urban communities; and (4) blacks made greater gains than did whites at all three age levels. The most important trend occurring over this period was that the worst readers improved the most, a trend that supports the continued government funding of disadvantaged student programs such as Right to Read and Title I. (HTH)

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Edward Fry, Ph.D.
Rutgers University
Reading Center
10 Seminary Place
New Brunswick, New Jersey 0890

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DO CHILDREN READ BETTER NOW THAN 10 YEARS AGO?

Edward Fry
Rutgers University

The nations major data gathering effort to discover how much children are learning in school is called the National Assessment of Educational Progress. This paper will report the major findings in the subject of Reading by comparing the 1970-71 scores with the most recent Reading Assessment done in the school year 1979-80.

Background

In 1969 the U. S. Office of Education started a formal and semi-independent major testing project to assess the nations children in a variety of subjects such as reading, mathematics, literature, science, writing, and other areas. To make the testing somewhat independent, it is administered

Paper presented at the National Reading Conference, Dallas, December 3, 1981.

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by an organization known as The Education Commission of the States. Most of the Chief State School Officers such as State Superintendent of Schools appoint members to that Commission. The Commission contracts and receives monies to do each assessment from the federal government. In 1969 the Commission contracted with the National Center for Educational Statistics, a part of the U. S. Office of Education. Most recently the contract was through the National Institute of Education for the Department of Education.

The National Assessment, unlike most nationally standardized texts or state basic skills tests is not a measure of any one childs progress and it is not a measure that can be used to compare schools, districts or states with each other. Instead, it is a stratified random measure to systematically sample three age groups in such a manner that generalizations can be made to the nation as a whole. However, some subdivisions are possible so that information is obtained for U. S. regions, race, community type, sex, and parent education.

No one student takes all the items, instead a single student would typically take one booklet with part of the items. These items are then pooled and generalizations made about the reading ability by age, class, region, sex, etc. Approximately 2500 students take any one item. However, in this most recent assessment approximately 27,000 different students took one of more booklets of items. One booklet takes approximately 45 minutes to administer.

Test items are written by professional testing companies like Science Research Associates and Educational Testing Service based on objectives developed by an Advisory Committee. I was the representative of the National Reading Conference on the Advisory Committee. Other organizations sending representatives to the Committee were the International Reading Association and the National Conference of Teachers of English. However, advisors were also selected to represent large and small school districts and other universities. One way or another, advice was sought from parent groups, various races, and other professional organizations.

The Advisory Committee also reviewed items and commented on the results. This whole cycle took about four years. Preliminary planning is now starting for the next reading assessment which will be conducted in about 1985.

The major emphasis of this paper will be on change data - those differences between approximately 1970 and 1980, however, before beginning to report the change data it might be helpful for the reader to know some absolute or non-change data based on mean scores.

The following statements confirm what is generally known about the nations reading scores. They are based on the mean total reading scores for three National Assessments, 1970-71, 1974-75, and 1979-80 for all three age groups tested, 9 year olds, 13 year olds and 17 year olds.

1. Region: The nation is broken into 4 regions (Texas is West, Maryland is Northeast, North Dakota and Ohio are Central). There was little variations between regions but

generally (all age groups, all subtests, and all 3 testings) the Central and Northeast Regions were slightly above the national norm and the West and Southeast were slightly below the national norm.

2. Sex: Girls read slightly better than boys.

3. Race: Whites read considerably better than blacks. Hispanics are considered white in these data. After 1980 they will be counted as a separate race.

4. Parent Education: Children whose parents had some post high school education read above the norm and children whose parents did not graduate from high school read below the norm. (Just high school graduate at norm)

5. Community Type: Children who live in an Advantaged Urban Community were way above the norm and children who lived in a Disadvantaged Urban or Rural Community were way below the norm. Children in Suburban or "Small Place" communities were near the norm.

Change Data

The major purpose of this paper is to report the changes which have taken place over the last decade. The change scores reported are difference in mean percent for total reading scores (all items) unless otherwise specified. Significance, when found, was twice the standard error of the mean which yields a significance level of .05. Exactly the same items were administered at both time periods.

Age: The 9 year olds read significantly better than the 9 year olds ten years ago (3.9%). The 13 year olds read slightly better (0.8%) and the 17 year olds read slightly

worse (-0.7%).

Ability Groups: One of the most interesting analyses done was to break down the age groups into quartiles by total scores. Here we see in Figure I a general trend for the lowest quartile to have gained the most over the 10 year period and conversely for the top quartile to gain the least or lose the most. In fact, the bottom two quartiles of the 9 year olds gained significantly (8.8 and 4.0) and the top quartile of both the 13 and the 17 year olds had significant losses (-2.4 and -2.3%).

Sex: Boys made a little better gains than girls. At age nine boys gained 4.4% and girls 3.5%. At age 13 boys gained 1.1% and girls 0.3% while at age 17 boys lost 0.3% and girls lost 1.0%.

Community Type: Generally the Rural and Disadvantaged urban communities posted greater gains (or less losses at age 17) than the Advantaged Urban community. This confirms data that the lowest quartile made the greatest gains.

Parent Education: Children with parents who were not high school graduates made the greatest gains (or the least loss at age 17). This also confirms the quartile data.

Race: Blacks made greater gains than whites at all age groups. Blacks made significant gains at ages 9 and 13 (9.9 and 4.2%) and a slight gain (0.5%) at age 17. This also confirms the quartile data.

Region: The regional data is somewhat mixed but the Southeast made the greatest gain at all age groups with a significant gain (7.5% at the 9 year old level). The Northeast

made a significant gain at age 9 (4 1%) but nonsignificant losses at ages 13 and 17.

Subskills: The National Assessment only had 3 reading subskills and the most apparent trend was that Inferential Comprehension made the least gain at age 9 and the most loss at ages 13 and 17.

Conclusion

The National Assessment is an interesting and important project for gathering data about the reading skills of the nation. It reaffirms what we think we know about reading and it points out important trends.

The most important trend that we saw over the past decade is that the worst readers have improved most - the youngest children, the lowest quartile, the blacks, the children in substandard communities and those with the least educated parents.

Conversely our most able students (top quartile) advantaged community, etc. have made the least gains or unfortunately the greatest losses. There is no reason for any group to have a loss, they are competing against children ten years ago not each other.

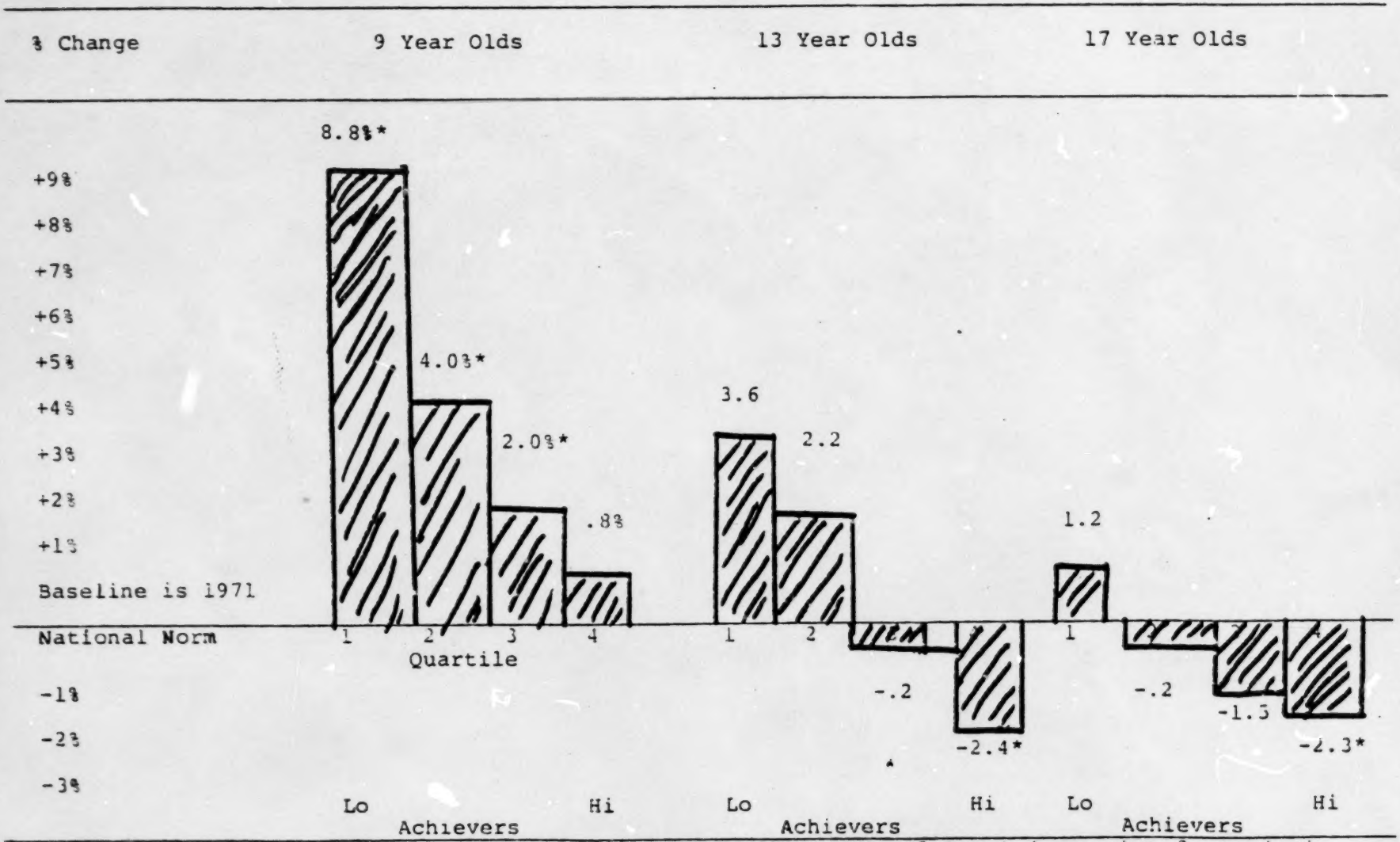
These data tend to support the government funding of disadvantaged students in such programs as Right to Read and Title I which were prominent in the last decade.

One of the most dramatic gains was made by black 9 year olds. If the present trend continues (based on 3 data points of 1970, 1974 and 1979) the black 9 year olds will equal the white 9 year olds in 20 more years (2000). It is interesting

that the white 9 year olds will also be reading considerably better then also. However, a similar projection of 17 year olds is not so rosy. By the year 2000 the blacks will be reading better but will still be far behind whites and as a group the 17 year olds will be slightly worse readers than they are now - unless something is done to change the trend formed in this past decade.

FIGURE 1

READING TEST PERCENT CHANGE SCORES IN 1980 COMPARED TO 1971 SCORES (BASE LINE) BY ACHIEVEMENT QUARTILES (TOP 25%, ETC) AND AGE GROUPS



*Indicates Percent Score Change is Statistically Significant at .05 Level (more than 2 standard errors.)

TABLE 1

TOTAL READING SCORE CHANGE SHOWING THE DIFFERENCE BETWEEN MEAN PERCENT SCORES IN 1970-71 AND 1979-80 FOR 3 AGE GROUPS

	9 YEAR OLDS	13 YEAR OLDS	17 YEAR OLDS
TOTAL AGE GROUP	3.9%*	0.8%	-0.7%
ACHIEVEMENT GROUPS (Quartiles)	8.8* (1) 4.0* (2) 2.0 (3) 0.8 (4)	3.6* (1) 2.2* (2) -0.2 (3) -2.4* (4)	1.2 (1) -0.2 (2) -1.5 (3) -2.3* (4)
SEX (Male-Female)	4.4* (M) 3.5* (F)	1.1 (M) 0.3 (F)	-0.3 (M) -1.0 (F)
COMMUNITY (Rural, Disadvantaged Urban, Advantaged Urban)	6.0* (R) 5.2* (DU) 1.6 (AU)	1.8 (R) 3.6 (DU) 0.8 (AU)	-1.1 (R) -1.4 (DU) -2.2 (AU)
PARENT EDUCATION (Non-graduate, High School Graduate, Post High School education)	4.0* (N) 2.4* (HS) 1.4* (P)	0.2 (N) -0.9 (HS) -1.0 (P)	-1.3 (N) -2.6* (HS) -1.7* (P)
RACE (White-Black)	2.8* (W) 9.9* (B)	0.0 (W) 4.2* (B)	-0.7 (W) -0.5 (B)
REGION (Northeast, Southeast, Central, West)	4.1* (NE) 7.5* (SE) 2.2* (C) 3.4* (W)	-0.5 (NE) 2.6 (SE) 0.8 (C) 0.4 (W)	-2.4 (NE) 1.7 (SE) -1.0 (C) -0.1 (W)
SUBSKILLS Literal and Inferential Comp., Reference	3.9* (L) 3.5* (I) 4.8* (R)	1.6* (L) -0.6 (I) 0.9 (R)	-0.2 (L) -2.1* (I) 0.8 (R)

*Sig .05